PO9-99-014 09/253,250

Amendments to The Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a network computing system, an apparatus for providing direct processing access between application servers and <u>at least one</u> application users comprising:

a main storage capable of establishing processing communication with <u>a plurality of more than one</u> application servers between images provided for virtual systems in said main storage;

said main storage containing a <u>plurality of queues</u>

<u>corresponding to said plurality of application servers queuing</u>

<u>mechanism</u> for retrieval and storage of incoming and outgoing data

without causing interrupts in any running programs, <u>said queuing</u>

<u>mechanism establishing queues for images for said virtual</u>

<u>systems</u>, said queues for retrieving data from and sending data to

<u>any of said application servers</u>;

an interface element capable of establishing processing communication between said <u>plurality of queues</u> queuing mechanism and <u>said</u> at least one application user;

an interrogator operating independent of any application server for examining <u>said plurality of multiple</u> queues <u>in said queuing mechanism</u> to transfer appropriate requests, responses and data between said application servers and said <u>at least one</u> application user(s).

PO9-99-014 · 09/253,250

2. (Previously Presented) The apparatus of claim 1, wherein said Interface Element further comprises a Connector Interface Element and a Network Interface Element.

- 3. (Original) The apparatus of claim 2, wherein said Connector Interface Element is in processing communication with said main storage via a Self-Timed Interface or an STI bus.
- 4. (Original) The apparatus of claim 2, wherein said Connector Interface Element comprises a plurality of processors.
- 5. (Original) The apparatus of claim 4, wherein one of said plurality of processors is used for redundancy purposes.
- 6. (Original) The apparatus of claim 2, wherein said main storage can be in processing communication with a plurality of network elements and servers.
- 7. (Previously Presented) The apparatus of claim 6, wherein said plurality of network elements comprise at least a web-server.
- 8. (Original) The apparatus of claim 7, wherein said web-server is a TCP/IP oriented server.
- 9. (Previously Presented) The apparatus of claim 2, wherein said Connector Interface Element and said Network Interface Element are in processing communication with one another via a Peripheral Controller Interface bus or a PCI bus.
- 10. (Previously Presented) The apparatus of claim 2, wherein said Network Interface Element further comprises an I/O

PO9-99-014 • 09/253,250

device adapter, at least one more processor and a local storage area.

- 11. (Original) The apparatus of claim 10, wherein said Network Interface Element is capable of connecting to one or more individual application users.
- 12. (Currently Amended) The apparatus of claim 1, wherein said Interface Element performs computing network environment functions establishing network communications between said application servers and said at least one application user(s).
- 13. (Previously Presented) The apparatus of claim 1, wherein said Interface Element performs control unit functions.
- 14. (Currently Amended) In a network computing system having a main storage capable of connecting to a plurality of more than one application servers and an interface element with at least one adapter capable of establishing processing communication with at least one application user(s), an apparatus for providing direct processing access between said main storage and said at least one adapter comprising:

<u>a plurality of queues</u> images provided for virtual

systems in said main storage <u>for access by corresponding ones of</u>

<u>said plurality of application servers</u>;

data receivers set up in each of said application servers for processing data;

a queuing mechanism establishing a plurality of queues in main storage for images for said virtual systems, said queues for retrieval from, and storage to, any of said application servers of incoming and outgoing data while providing continuous running of programs without interruptions;

PO9-99-014 09/253,250

an updator for changing the status of said network computing system every time new data is received, deleted or modified;

an interrogator operating independent of any application server for interrogating <u>said plurality of multiple</u> existing queues in said main storage simultaneously to process any received data or requests such that data or requests may be received from more than one application server <u>in said images for said virtual systems</u>;

a determinator for interrogation and routing of data to the appropriate application user to which said data has been forwarded.

- 15. (Previously Presented) The apparatus of claim 14, wherein said Interface Element further comprises a Connector Interface Element and a Network Interface Element.
- 16. (Original) The apparatus of claim 15, wherein said Connector Interface Element is in processing communication with said main storage via a Self-Timed Interface or an STI bus.
- 17. (Original) The apparatus of claim 15, wherein said main storage can be in processing communication with a plurality of network elements and servers.
- 18. (Previously Presented) The apparatus of claim 15, wherein said Connector Interface Element and said Network Interface Element are in processing communication with one another via a Peripheral Controller Interface bus or a PCI bus.
- 19. (Previously Presented) The apparatus of claim 15, wherein said Network Interface Element further comprises an I/O

PO9-99-014 09/253,250

device adapter, at least one more processor and a local storage area.

- 20. (Original) The apparatus of claim 19, wherein said Network Interface Element is capable of connecting to one or more individual application users.
- 21. (Original) The apparatus of claim 15, wherein said Connector Interface Element is in processing communication with said main storage via a direct access memory I/O device.
- 22. (Previously Presented) The apparatus of claim 15, wherein said Connector Interface Element and said Network Interface Element are in processing communication with one another via a direct access memory I/O device.